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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,979	08/30/2001	Naoki Matsuoka	100794-11772 (FUJG) 18.949	7690
26304	7590	04/19/2005	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585			NGUYEN, SON XUAN	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/942,979	Applicant(s) MATSUOKA ET AL.	
	Examiner SON X. NGUYEN	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5 and 11 is/are rejected.
7) ☒ Claim(s) 6-10 and 12 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/23/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being participated by Suzuki at el. (U.S 6,813,274) hereinafter referred to as Suzuki.

2. Regarding claim 1, Suzuki discloses a packet switch, comprising: N input buffer sections **(Input ports 305-320 including input buffers in Fig. 4)**, provided corresponding to N input lines, for storing a packet input through the corresponding input lines;

.alpha. scheduler sections **(Scheduler 1 and 2 in Fig. 4)** for determining one of m output lines as a destination of the packet stored in each of said n input buffer

Art Unit: 2664

sections by a scheduling process independently performed by each scheduler section

(Each scheduler receives and processes requests from input ports concurrently and independently; See lines 55-58 of column 3); and

a switch section **(Switches 1-4 in Fig. 4)** for outputting the packet output from each of said n input buffer sections to the destination output line determined by said scheduler section, wherein said n input buffer sections cyclically use results of scheduling processes by said .alpha. scheduler sections **(Both Schedulers, 1 and 2, send grant messages, response to request , to Input port 1 through control line C1 and C2, so input port cyclically get these messages from these schedulers; See lines 22-24 and 31-34 of column 9).**

Regarding claim 2, Suzuki discloses said scheduling process is performed by said scheduler section corresponding to a scheduling request notification transmitted from said N input buffer sections **(Input port sends request on request line R1 for sending packet to scheduler; See lines 20-22 of column 9); and**

each of said N input buffer sections distributes the scheduling request notifications among said scheduler sections as a destination **(Input port sends request on request line R1 and R2 for sending packet to scheduler 1 and 2; See lines 20-22 and 29-31 of column 9).**

Regarding claim 3, Suzuki discloses said input buffer sections have M queues **(Input buffers in Input port of Fig. 4)** storing packets to be transmitted to the M output lines, and said scheduler sections, which are destinations of the scheduling request notifications, cyclically correspond to the M numbers of each queue **(Scheduler 1**

Art Unit: 2664

receives request messages from all input ports, so it cyclically responds to them by sending back grant messages through control line C1 and C2; See lines 12-15 and 64-66 of column 9).

Regarding claim 4, Suzuki discloses said input buffer sections have said scheduler sections, which are destinations of the scheduling request notifications, cyclically correspond to the each input lines **(Scheduler selects which output ports for received packet; See lines 12-15 of column 9).**

Regarding claim 5, Suzuki discloses said input buffer sections have said scheduler sections, which are destinations of the scheduling request notifications, cyclically correspond to each of a unit time **(only one request can be granted at a time for each input port; See lines 29-31 of column 3).**

Regarding claim 11, Suzuki discloses said number .alpha. of said scheduler sections and the time of the scheduling process are set variable depending on the number N of the input lines and the number M of the output lines **(The more schedulers operating concurrently and independently, more requests can be processed at one time for packet switching than by a single scheduler; See lines 27-30 of column 5).**

Allowable Subject Matter

Art Unit: 2664

3. Claims 6-10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Suzuki et al. (U.S. 6,813,274) Network switch and method for data switching using a crossbar switch fabric with output port groups operating concurrently and independently.

b) Chow et al. (U.S. 6,438,134) Two-component bandwidth scheduler having application in multi-class digital communications systems.

c) Kamiya et al. (US 2002/0039364 A1) Two-dimensional pipelined scheduling technique.

d) Matsuoka et al. (US 2001/0007562 A1) Packet switch device and scheduling control method.

e) Jun Hasegawa (U.S. 6,185,188) Method and apparatus for controlling physical port flow rate in packet communications.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SON X. NGUYEN whose telephone number is 571-272-6048. The examiner can normally be reached on 8 AM -5 PM.

Art Unit: 2664

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

4/13/05
Son X. Nguyen



WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER